


## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/817,159	04/02/2004	David Russell	ZCO-101

021323  
TESTA, HURWITZ & THIBEAULT, LLP  
HIGH STREET TOWER  
125 HIGH STREET  
BOSTON, MA 02110



CONFIRMATION NO. 1167  
FORMALITIES LETTER



\*OC000000012994203\*

Date Mailed: 06/18/2004

## NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

08/20/2004 BABRAHA1 00000067 10817159

01 FC:1001	770.00 OP
02 FC:1051	130.00 OP
03 FC:1202	396.00 OP
04 FC:1201	86.00 OP

FILED UNDER 37 CFR 1.53(b)

*Filing Date Granted*

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.  
*Applicant must submit \$ 770 to complete the basic filing fee for a non-small entity. If appropriate, applicant may make a written assertion of entitlement to small entity status and pay the small entity filing fee (37 CFR 1.27).*
- The oath or declaration is missing.  
*A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.*
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(e) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Additional claim fees of **\$852** as a non-small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$1752** for a Large Entity


- **\$770** Statutory basic filing fee.
- **\$130** Late oath or declaration Surcharge.

- Total additional claim fee(s) for this application is **\$852**
  - **\$258** for **3** independent claims over 3.
  - **\$594** for **33** total claims over 20.

Replies should be mailed to:    Mail Stop Missing Parts  
   Commissioner for Patents  
   P.O. Box 1450  
   Alexandria VA 22313-1450

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*A copy of this notice **MUST** be returned with the reply.*

  
\_\_\_\_\_  
Customer Service Center  
Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE



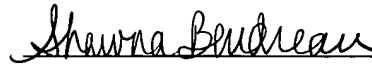
PATENT  
Attorney Docket No. ZCO-101

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT(S): Russell et al. CONFIRMATION NO 1167  
SERIAL NO.: 10/817,159 GROUP NO.: 1732  
FILING DATE: April 2, 2004 EXAMINER: Not yet assigned  
TITLE: Apparatus and Methods for 3D Printing

**CERTIFICATE OF FIRST CLASS MAILING UNDER 37 C.F.R. 1.8**

I hereby certify that this correspondence, and any document(s) referred to as enclosed herein, is/are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to Mail Stop Missing Parts, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 17th day of August, 2004.

  
Shawna Boudreau

Mail Stop Missing Parts  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith is/are:

1. Transmittal Form (1 pg.);
2. Fee Transmittal (1 pg.);
3. Copy of Notice to File Missing Parts of Nonprovisional Application (2 pgs.);
4. Response to Notice to File Missing Parts (1 pg.)
5. Preliminary Amendment (7 pgs.);
6. Copy of Executed Declaration and Power of Attorney (3 pgs.);
7. Check in the amount of \$1,382.00;
8. Formal Drawings (19 sheets);
9. Transmittal of Formal Drawings (1 pg.);
10. Return Receipt Postcard; and this
11. Certificate of First Class Mailing.



# TRANSMITTAL FORM

Application Serial Number	10/817,159
Filing Date	April 2, 2004
First Named Inventor	Russell
Group Art Unit	1732
Examiner Name	Not Yet Assigned
Attorney Docket No.	ZCO-101
BATCH NO. (after allowance)	Not applicable
Patent No.	Not applicable
Issue Date	Not applicable

## ENCLOSURES (check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form (1 pg.) <input checked="" type="checkbox"/> Check Attached <input type="checkbox"/> Copy of Fee Transmittal Form <input checked="" type="checkbox"/> Amendment/Response <input checked="" type="checkbox"/> Preliminary <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Letter to Official Draftsperson including Drawings [Total Sheets] <input type="checkbox"/> Petition for Extension of Time (1pg.) <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Form PTO-1449 <input type="checkbox"/> Copies of IDS Citations <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Sequence Listing submission <input type="checkbox"/> Paper Copy/CD <input type="checkbox"/> Computer Readable Copy <input type="checkbox"/> Statement verifying identity of above	<input checked="" type="checkbox"/> Copy of the Notice to File Missing Parts (2 pgs.) <input checked="" type="checkbox"/> Formal Drawings (19 sheets) <input type="checkbox"/> Request For Continued Examination (RCE) Transmittal <input checked="" type="checkbox"/> Declaration and Power of Attorney <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Copy of the executed Declaration and Power of Attorney for Utility or Design Patent Application (3 pgs.) <input type="checkbox"/> Small Entity Statement <input type="checkbox"/> CD(s) for large table or computer program <input type="checkbox"/> Amendment After Allowance <input type="checkbox"/> Request for Certificate of Correction <input type="checkbox"/> Certificate of Correction (in duplicate)	<input type="checkbox"/> Notice of Appeal to Board of Patent Appeals and Interferences <input type="checkbox"/> Appeal Brief (in triplicate) <input type="checkbox"/> Status Inquiry <input checked="" type="checkbox"/> Return Receipt Postcard <input checked="" type="checkbox"/> Certificate of First Class Mailing under 37 C.F.R. 1.8 <input type="checkbox"/> Certificate of Facsimile Transmission under 37 C.F.R. 1.8 <input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below) <input checked="" type="checkbox"/> Transmittal of Formal Drawings (1 pg.) <input checked="" type="checkbox"/> Response to Notice of Missing Parts (1 pg)
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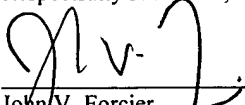
### CORRESPONDENCE ADDRESS

Direct all correspondence to: Patent Administrator  
Testa, Hurwitz & Thibault, LLP  
High Street Tower  
125 High Street  
Boston, MA 02110  
Tel. No.: (617) 248-7000  
Fax No.: (617) 248-7100

### SIGNATURE BLOCK

Date: August 17, 2004  
Reg. No. 42,545  
Tel. No.: (617) 248-7675  
Fax No.: (617) 248-7100

Respectfully submitted,

  
John V. Forcier  
Attorney for the Applicants  
Testa, Hurwitz & Thibault, LLP  
High Street Tower  
125 High Street  
Boston, MA 02110



**FEE TRANSMITTAL**  
**FY 2004**

*Complete if Known*

Application Serial Number	10/817,159
Filing Date	April 2, 2004
First Named Inventor	Russell
Group Art Unit	1732
Examiner Name	Not yet assigned
Attorney Docket No.	ZCO-101

**METHOD OF PAYMENT**

1. ☒ Payment Enclosed:  
☒ Check ☐ Money Order ☐ Other
2. ☒ The Commissioner is hereby authorized to credit or charge any fee indicated below for this submission to Deposit Account No. 20-0531.  
☐ Required Fees (copy of this sheet enclosed).  
☒ Additional fee required under 37 CFR 1.16 and 1.17.  
☒ Overpayment Credit.
3. ☐ Applicant claims small entity status.

**FEE CALCULATION**

**1. FILING FEE**

**Large Entity**

Fee (\$)	Fee Description	Fee Paid
770	Utility filing fee	770.00
340	Design filing fee	
160	Provisional filing fee	

	Number Filed	Number Extra	Rate	Amount
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Total Claims      42      - 20 = 22      x \$ 18.00 =      396.00

Independent Claims      4      - 3 = 1      x \$ 86.00 =      86.00

☐ Multiple Dependent Claim(s), if any      \$290.00 =

**TOTAL:**

**SMALL ENTITY DISCOUNT:**

**SUBTOTAL (1)**      (\$ )      1252.00

**2. AMENDMENT CLAIM FEES**

Claims Remaining After Amend.	Highest No. Previously Paid For	Present Extra	Rate	Fee Paid
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Total      -      =      x \$ 18.00 =

Indep.      -      =      x \$ 86.00 =

☐ First Presentation of Multiple Dep. Claim      + \$290.00 =

**TOTAL:**      (\$ )

**SMALL ENTITY DISCOUNT:**      (\$ )

**SUBTOTAL (2)**      (\$ )      0.00

**FEE CALCULATION (continued)**

**3. ADDITIONAL FEES**

Large Entity Fee (\$)	Small Entity Fee (\$)	Fee Description	Fee Paid
130	65	Surcharge - late filing fee or oath	130.00
50	25	Surcharge - late provisional filing fee or cover sheet	
130	130	Non-English specification	
2,520	2,520	Request for ex parte reexamination	
110	55	Extension for reply within first month	
420	210	Extension for reply within second month	
950	475	Extension for reply within third month	
1480	740	Extension for reply within fourth month	
2010	1005	Extension for reply within fifth month	
330	165	Notice of Appeal	
330	165	Filing a brief in support of an appeal	
290	145	Request for oral hearing	
130	130	Petitions to the Commissioner	
180	180	Submission of Information Disclosure Statement	
770	385	Filing a submission after final rejection (37 CFR 1.129(a))	
770	385	For each additional invention to be Examined (37 CFR 1.129(b))	
100	100	Certificate of Correction for Applicant's error	
110	55	Submission of Terminal Disclaimer	
Other fee (Specify)			
Other fee (Specify)			

**SUBTOTAL (3)**      (\$ )      130.00

**SUBTOTAL (1)**      1252.00

**SUBTOTAL (2)**      0.00

**SUBTOTAL (3)**      130.00

**TOTAL**      (\$ )      1382.00

**CORRESPONDENCE ADDRESS**

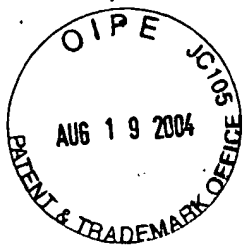
Direct all correspondence to:

Patent Administrator  
Testa, Hurwitz & Thibault, LLP  
High Street Tower-125 High Street  
Boston, MA 02110  
Tel. No.: (617) 248-7000  
Fax No.: (617) 248-7100

**SIGNATURE BLOCK**

Date: August 17, 2004  
Reg. No. 42,545  
Tel. No.: (617) 248-7675  
Fax No.: (617) 248-7100

Respectfully submitted,  
  
John V. Forcier  
Attorney for the Applicants  
Testa, Hurwitz & Thibault, LLP  
125 High Street  
Boston, MA 02110



**PATENT**  
Attorney Docket No. ZCO-101  
(9036/6)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT(S): Russell *et al.* CONFIRMATION NO. 1167  
SERIAL NO.: 10/817,159 GROUP NO.: 1732  
FILING DATE: April 2, 2004 EXAMINER: Not yet assigned  
TITLE: Apparatus and Methods for 3D Printing

Mail Stop Missing Parts  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO NOTICE TO FILE MISSING PARTS**

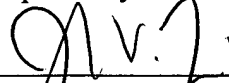
Applicants enclose a Preliminary Amendment and request that the Patent Office base the fees due on the claims pending after entry of this amendment. Accordingly, in response to a Notice to File Missing Parts dated June 18, 2004, Applicants submit a check in the amount of \$1382.00 for payment of the filing fee, surcharge for a late filing fee, and fees for claims pending after entry of the Preliminary Amendment.

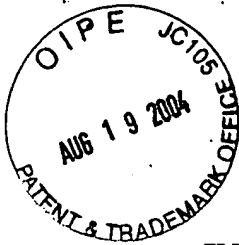
The Commissioner is authorized to charge any additional fees or credit any overpayment occasioned by this paper to Deposit Account No. 20-0531.

Date: August 17, 2004  
Reg. No. 42,545

Tel. No.: (617) 248-7675  
Fax No.: (617) 248-7100

Respectfully submitted,

  
\_\_\_\_\_  
John V. Forcier  
Attorney for the Applicants  
Testa, Hurwitz, & Thibeault, LLP  
125 High Street  
Boston, Massachusetts 02110



PATENT  
Atty. Docket No. ZCO-101  
(9036/6)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANTS: Russell *et al.* CONFIRMATION NO.: 1167  
SERIAL NUMBER: 10/817,159 GROUP ART UNIT: 1732  
FILING DATE: April 2, 2004 EXAMINER: Not yet assigned  
TITLE: Apparatus and Methods for 3D Printing

Mail Stop Missing Parts  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL OF FORMAL DRAWINGS**

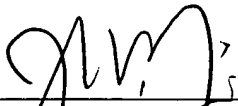
Sir:

Please find attached the formal drawings for this application - Number of Sheets - 19.

Respectfully submitted,

Date: August 17, 2004  
Reg. No. 42,545

Tel. No.: (617) 248-7675  
Fax No.: (617) 248-7100

  
\_\_\_\_\_  
John V. Forcier  
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3107029